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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,536	10/24/2003	Jeff Jelinek	87359.1940	6875
7590 05/05/2005 BAKER & HOSTETLER LLP Washington Square, Suite 1100 1050 Connecticut Avenue, N.W. WASHINGTON, DC 20036			EXAMINER PRICE, CARL D	
			ART UNIT 3749	PAPER NUMBER

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,536

Applicant(s)

JELINEK, JEFF

Examiner

CARL D. PRICE

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-11 and 13-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 02/01/2005, with respect to claims 1-3, 8-11 and 17-19 being rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-148307, have been fully considered but they are not persuasive.

With regard to claims applicant respectfully traverses the rejection based on the apparent lack of teaching in JP10-148307 of a “burner controller operably connected to the system controller wherein the system controller sends a signal to the burner controller to shut down the burner when the NOx emissions in the exhaust conduit are at a first unacceptable level, and 2) a “method of determining if a recirculation valve should be one of open, closed or remain the same according to the predetermined criteria”, applicant’s attention is directed to the prior art reference of JP57-43120 (of record) now relied on to teach this limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-7, 12-16 and 20: Rejected under 35 U.S.C. 103(a)

Claims 1, 3-11 and 13-20 are rejected under 35 U.S.C. 103(a) as being obvious over **JP 10-148307** in view of **JP57-43120** (of record) or **US005511971A (Benz et al)**.

JP 10-148307 shows and discloses (see the English language abstract) a system for a hydrocarbon fired burner comprising:

- an exhaust conduit (5) in fluid communication with a burner (3);
- a recirculation conduit (11) configured to provide at least at times fluid communication between the exhaust conduit and burner inlet;
- an adjustable valve (16) configured to selectively permit the recirculation conduit to provide fluid communication between the exhaust conduit and the burner inlet;
- an NO_x sensor (22) located upstream from the recirculation conduit in the exhaust conduit (5), and
- a system controller (24) connected to the NO_x sensor and configured to monitor an amount of NO_x emissions in the exhaust conduit,
- the system controller is also connected to the valve to adjust the valve.

However, **JP 10-148307** does not disclose:

- means to shut down burners when the unacceptable operating parameters are detected;
- solenoid valves as fluid control means;

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- a digital microprocessor with a memory and stored operating values as a system controller:
- system control means arranged to activate an alarm when system parameters are at an unacceptable levels to notify maintenance personnel.

JP57-43120 shows and discloses (See the English language abstract) a method for a hydrocarbon fired burner including continuously measuring NO_x, sending an NO_x signal to a control box (17) that compares (i.e. – determines) “the stored value” (i.e. – a predetermines) “with a measured value and issues a command signal to ... control dampers 6, 8a, 8b ...”.

US005511971A (Benz et al) shows and discloses (See column 5, line 56 – column 6, line 11) a method for a hydrocarbon fired burner including continuously measuring NO_x, sending an NO_x signal to a computer controller (58) that determines a command signal to control the solenoid operated recirculation damper (77).

In regard to claims 10, 11, and 13-20, for the purpose of providing a suitable controller device for determining if a recirculation valve should be one of open, closed or remain the same according to the predetermined criteria, it would have been obvious to a person having ordinary skill in the art to utilize a device for continuously measuring NO_x, sending the NO_x signal to a control box that compares (i.e. – determines) the stored value as a function of a predetermined value and generating a command signal, in view of the teaching of **JP57-43120** or **US005511971A (Benz et al)**. In regard to claim 18, in particular, the recirculation valve of

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JP57-43120, with or without the modification according to the teaching of JP57-43120, would necessarily operate to leave the valve in a current position when no determination is made for adjustment.

Official Notice is taken that it is well known to:

- shut down burners when the unacceptable operating parameters are detected in order to prevent unsafe or damaging burner operation (see for example, **US005002484(Lefton et al) and JP 03-194314;**
- use solenoid valves as fluid control means (see (77) in **US005511971A (Benz et al);**
- use a microprocessor with a memory and stored operating values as a system controller **US005511971A (Benz et al);**
- system control means arranged to activate an alarm when system parameters are at a unacceptable levels to notify maintenance personnel.

In regard to claims 10, 11, and 13-20, in view of that which is well known and for the purpose of preventing unsafe or damaging burner operation and to provide suitable means for operating the control system, it would have been obvious to a person having ordinary skill in the art to provide the various system components set forth in the claims.

Conclusion

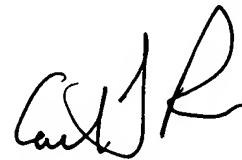
See the attached PTO FORM 892 for prior art made of record and not relied upon and which are considered pertinent to applicant's disclosure.

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CARL D. PRICE** whose telephone number is **(571) 272-4880**. The examiner can normally be reached on Monday through Friday between **6:30am-3:00pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on **(571) 272-4877**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **<http://pair-direct.uspto.gov>**. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**.



CARL D. PRICE
Primary Examiner
Art Unit 3749